Amendments to the Claims:

This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1 (Currently amended): A membrane electrode assembly comprising a hydrogen ion conductive polymer electrolyte membrane, a pair of catalyst layers arranged on both surfaces of said polymer electrolyte membrane, and a pair of gas diffusion layers, each comprising a fibrous substrate, arranged on the outer surfaces of said catalyst layers, characterized in that,

a main surface of said fibrous substrate has a larger area than a main surface of said catalyst layer,

said fibrous substrate has a center portion that faces said catalyst layer and a peripheral portion surrounding said center portion, and

in said fibrous substrate, a thickness [[TA]] T_A of [[a]] said center portion ~~that faces said catalyst layer~~ and a thickness [[TB]] T_B of [[a]] said peripheral portion ~~surrounding said center portion~~ have a relation represented by the following expression (1):

~~$0.7 \leqq TB/TA \leqq 0.9$~~ $0.7 \leqq T_B/T_A \leqq 0.9$ ...(1).

2 (Currently amended): The membrane electrode assembly in accordance with claim 1, characterized in that,

in said fibrous substrate, a thread diameter [[DA]] D_A of said center portion and a thread diameter [[DB]] D_B of said peripheral portion have a relation represented by the following expression (2):

~~$DB < DA$~~ $D_B < D_A$ ...(2) .

3 (Currently amended): The membrane electrode assembly in accordance with claim 1, characterized in that,

in said fibrous substrate, a warp and weft thread count [[NB]] N_B per unit area of said peripheral portion and a warp and weft thread count [[NA]] N_A per unit area of said center portion have a relation represented by the following expression (3):

~~NB < NA~~ $N_B < N_A$ ...(3).

4 (Original): The membrane electrode assembly in accordance with claim 1, characterized in that,

in said fibrous substrate, said peripheral portion is pressed.

5 (Currently amended): The membrane electrode assembly in accordance with claim 1, characterized in that,

said fibrous substrate comprises a water repellent, and

a water repellent concentration [[HB]] H_B of said peripheral portion and a water repellent concentration [[HA]] H_A of said center portion have a relation represented by the following expression (4):

~~HB > HA~~ $H_B > H_A$ ...(4).

6 (Currently amended): The membrane electrode assembly in accordance with claim 1, characterized in that,

a variation of the thickness [[TA]] T_A of said peripheral portion is not greater than 10 μm.

7 (Previously presented): The membrane electrode assembly in accordance with claim 1, characterized in that,

said gas diffusion layer has a water repellent carbon layer on a main surface of said fibrous substrate at the catalyst layer side.

8 (Original): A polymer electrolyte fuel cell comprising the membrane electrode assembly in accordance with claim 1, and a pair of conductive separators, each having a gas flow channel, arranged on both surfaces of said membrane electrode assembly.

9 (Currently amended): A method for producing a membrane electrode assembly comprising a hydrogen ion conductive polymer electrolyte membrane, a pair of catalyst layers arranged on both surfaces of said polymer electrolyte membrane, and a pair of gas diffusion layers, each comprising a fibrous substrate, arranged on the outer surfaces of said catalyst layers,

said method comprising a step of producing said fibrous substrate such that a main surface of said fibrous substrate has a larger area than a main surface of said catalyst layer, that said fibrous substrate has a center portion that faces said catalyst layer and a peripheral portion surrounding said center portion, that a thickness [[TA]] T_A of [[a]] said center portion ~~that faces said catalyst layer~~ and a thickness [[TB]] T_B of [[a]] said peripheral portion ~~surrounding said center portion~~ have a relation represented by the following expression (1), and that a thread diameter [[DA]] D_A of said center portion and a thread diameter [[DB]] D_B of said peripheral portion have a relation represented by the following expression (2):

~~$0.7 \leqq TB/TA \leqq 0.9$~~ $0.7 \leqq T_B/T_A \leqq 0.9$ ...(1),

~~$DB < DA$~~ $D_B < D_A$ ...(2).

10 (Currently amended): A method for producing a membrane electrode assembly comprising a hydrogen ion conductive polymer electrolyte membrane, a pair of catalyst layers

arranged on both surfaces of said polymer electrolyte membrane, and a pair of gas diffusion layers, each comprising a fibrous substrate, arranged on the outer surfaces of said catalyst layers,

said method comprising a step of producing said fibrous substrate such that a main surface of said fibrous substrate has a larger area than a main surface of said catalyst layer, that said fibrous substrate has a center portion that faces said catalyst layer and a peripheral portion surrounding said center portion, that a thickness [[TA]] T_A of [[a]] said center portion ~~that faces said catalyst layer~~ and a thickness [[TB]] T_B of [[a]] said peripheral portion ~~surrounding said center portion~~ have a relation represented by the following expression (1), and that a warp and weft thread count [[NB]] N_B per unit area of said peripheral portion and a warp and weft thread count [[NA]] N_A per unit area of said center portion have a relation represented by the following expression (3):

~~$0.7 \leqq TB/TA \leqq 0.9$~~ $0.7 \leqq T_B/T_A \leqq 0.9$...(1),

~~$NB < NA$~~ $N_B < N_A$ ...(3).

11 (Currently amended): A method for producing a membrane electrode assembly comprising a hydrogen ion conductive polymer electrolyte membrane, a pair of catalyst layers arranged on both surfaces of said polymer electrolyte membrane, and a pair of gas diffusion layers, each comprising a fibrous substrate, arranged on the outer surfaces of said catalyst layers,

said method comprising ~~a step~~ the steps of:

producing said fibrous substrate such that a main surface of said fibrous substrate has a larger area than a main surface of said catalyst layer, and that said fibrous substrate has a center portion that faces said catalyst layer and a peripheral portion surrounding said center portion; and~~, by~~

pressing said peripheral portion, such that a thickness [[TA]] T_A of [[a]] said center portion ~~that faces said catalyst layer~~ and a thickness [[TB]] T_B of [[a]] said peripheral portion ~~surrounding said center portion~~ have a relation represented by the following expression (1):

~~$0.7 \leqq TB/TA \leqq 0.9$~~ $0.7 \leqq T_B/T_A \leqq 0.9$...(1).

12 (Currently amended): A method for producing a membrane electrode assembly comprising a hydrogen ion conductive polymer electrolyte membrane, a pair of catalyst layers arranged on both surfaces of said polymer electrolyte membrane, and a pair of gas diffusion layers, each comprising a fibrous substrate, arranged on the outer surfaces of said catalyst layers,

said method comprising a step of producing said fibrous substrate comprising a water repellent such that a main surface of said fibrous substrate has a larger area than a main surface of said catalyst layer, that said fibrous substrate has a center portion that faces said catalyst layer and a peripheral portion surrounding said center portion, that a thickness [[TA]] T_A of [[a]] said center portion ~~that faces said catalyst layer~~ and a thickness [[TB]] T_B of [[a]] said peripheral portion ~~surrounding said center portion~~ have a relation represented by the following expression (1), and that a water repellent concentration [[HB]] H_B of said peripheral portion and a water repellent concentration [[HA]] H_A of said center portion have a relation represented by the following expression (4):

~~$0.7 \leqq TB/TA \leqq 0.9$~~ $0.7 \leqq T_B/T_A \leqq 0.9$...(1),

~~$HB > HA$~~ $H_B > H_A$...(4).